UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/562,873	12/29/2005	Josef Lutz	AT03 0037 US1	6752

65913 7590 08/19/2009

NXP, B.V.
NXP INTELLECTUAL PROPERTY & LICENSING
M/S41-SJ
1109 MCKAY DRIVE
SAN JOSE, CA 95131

EXAMINER	
LE, HUYEN D	

ART UNIT	PAPER NUMBER
2614	

NOTIFICATION DATE	DELIVERY MODE
08/19/2009	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

ip.department.us@nxp.com

Office Action Summary	Application No.	Applicant(s)	
	10/562,873	LUTZ, JOSEF	
	Examiner	Art Unit	
	HUYEN D. LE	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 June 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claim 8 is objected to because of the following inconsistency: in claim 8, line 2, after "diaphragm", "means" should be deleted. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. Claim 19 recites the limitation "the drive means" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-4, 7, 8, 10, 11, 13, 18-26 are rejected under 35 U.S.C. 102(b) as being anticipated by Williamson et al. (US 3,008,013).

Regarding claims 1, 7, 13, 18, 19, 23-24 and 26, Williamson et al. teaches an audio speaker device comprising a chamber (figures 3, 4, 5, 11) that comprises chamber walls (22, 23, 35, 75) and at least one medium opening (24, 36, 77) for the audio medium stream, a diaphragm (21, 25, 72, 73, 76, 79) to generate the audio medium stream, an audio driver circuit (figures 3,

13) responsive to electrical drive signals corresponding to the audio data for driving the diaphragm to impose a deformation on the diaphragm via mechanical tension to generate audible sound corresponding to the audio data in an active operating state of the device.

Regarding claim 2, Williamson et al. teaches the electrodes (22, 23, 34, 74, 78) arranged on the chamber walls and a control signal source as claimed (figures 3, 4, 5, 11, 13, col. 2, lines 43-47, col. 4, lines 58-62, col. 6, lines 50-63).

Regarding claims 3 and 4, Williamson et al. teaches the diaphragm (21, 25, the diaphragm electrodes 72, 73) comprising a metal foil as claimed (col. 1, lines 11-15 and col. 2, lines 62-64).

Regarding claim 8, Williamson et al. teaches the electromechanical drive element (25, 76, 79) and the diaphragm having an end portion which is connected to the drive element (figures 3, 4, 11) as claimed.

Regarding claim 10, Williamson et al. shows the chamber comprising at least two medium openings (24, 36, 77) as claimed.

Regarding claim 11, Williamson et al. shows the diaphragm having an at least substantially constant thickness as claimed.

Regarding claim 20, as broadly claimed, the loudspeaker device of Williamson et al. is provided as pump device for the medium stream when the diaphragm is in an active state (figure 3 and see col. 1, lines 11-15, col. 2, lines 37-53).

Regarding claim 21, Williamson shows a number of chambers in the device as claimed (figure 11).

Regarding claim 22, Williamson shows an insulating layer (26) as claimed.

Regarding claim 25, Williamson shows the electrodes (34, 74, 78, col. 6, lines 33-41) as claimed.

5. Claims 1, 5, 6, 9, 12 and 14-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Hamada et al. (US 7,020,295).

Regarding claims 1, 5 and 6, Hamada et al. teaches an audio speaker device comprising a chamber (figures 2, 4) that comprises chamber walls (10, 10a to 10e, 20) and at least one medium opening (10j) for the audio medium stream, a diaphragm (1, 2, 3) to generate the audio medium stream, an audio driver circuit responsive to electrical drive signals corresponding to the audio data for driving the diaphragm to impose a deformation on the diaphragm via mechanical tension to generate audible sound corresponding to the audio data in an active operating state of the device (11, 12, col. 6, lines 8-21). Hamada et al. further teaches the diaphragm (1, 2, 3, figures 2, 5) that consists of at least partly of piezoelectric material and comprises an electrode as claimed.

Regarding claims 9, 12 and 14, Hamada et al. shows the device having the chamber that is of substantially cuboidal construction, comprises two end walls lying opposite one another and having the drive as claimed (figures 1, 2, 3 and see col. 6, lines 8-21).

Regarding claims 15 and 16, Hamada et al. shows the diaphragm (1, 2, 3) being fixed with one end region and an opposite end region and comprising a transition portion as claimed (figures 2, 3).

Regarding claim 17, Hamada et al. teaches the medium openings (10i, 10j) as claimed.

Response to Arguments

6. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Pavlovic et al. (US 7,289,638) teaches an electrode made of piezoelectric material which can be used for electrostatic microphone capsules.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (571) 272-7502. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CURTIS KUNTZ can be reached on (571) 272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUYEN D. LE/
Primary Examiner, Art Unit 2614

HL
August 14, 2009